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ABSTRACT

A variety of demographic trends and futurists' expectations are examined for implications for the development of newer roles for educational psychologists. In the future, educational psychologists may be involved in functions dealing with maintenance of health, education of older populations, instruction of personnel to care for chronically ill populations, administrative and training roles in the day-care field, and preparation of instructional materials. It should not be overlooked that curricula and training programs for educational psychologists will need to be changed to accommodate the changing role of educational psychologists. Therefore, educational psychologists have a very important role as change agents at the higher education level, at the preparation stage. (CB)

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New Directions for Educational Psychologists

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Abstract

This paper examines demographic trends and projections of futurists to suggest some new roles to be exercised by educational psychologists. Among these are functions dealing with maintenance of health, educating older people, instructing personnel to care for chronically ill populations, administrative and training roles in the expanding day-care field, and opportunities in the preparation of instructional materials, including computer assisted instruction.

New Directions for Educational Psychologists

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There has been a good deal of informal and some formal comment (Farley, 1984) that educational psychology at present is facing a particularly acute paradox. Scientific developments in the field have rarely been more fruitful in terms of theory, research, and applications to educational practice. Important developments are occurring in areas such as understanding reading comprehension, the analysis of problem solving, clarification of the psychological processes underlying individual differences in cognitive abilities, and the utilization of technology in education. Major theoretical approaches are being tested in school-like contexts. Despite these signs of vitality the discipline of educational psychology is experiencing difficulties, as reflected in declining membership in the Division of Educational Psychology of the American Psychological Association, and in the reduced number of graduate students in educational psychology doctoral programs. The purpose of this paper is to suggest some new roles for educational psychologists that may help to reduce this paradoxical situation.

New directions for educational psychologists can be extrapolated by reviewing the implications of some demographic data and the expectations of futurists. The impetus for this presentation came from some projects conducted in New York State (Tobias, 1977,1978,1980,1981; Statewide Business Education Review Committee,

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1979; Statetewide Health Occupations Education Review Committee, 1982) in which curricula in a number of vocational education programs were revised from a futurist perspective. This perspective seemed especially applicable to vocational education since a prime consideration of such programs is to provide students with marketable skills. If curricula were revised for the types of skills needed at the time the revision process was initiated, they might well be obsolete when they were to be implemented. These projects examined futurist scenarios and demographic data to project societal needs at the beginning of the 21st Century and extrapolated from these data to the vocational education areas so that the revised curricula could meet emerging needs.

The model of projecting future needs also has applicability to educational psychology. Obviously, graduates of such doctoral programs should be taught the kinds of skills they will be required to use in their professional roles. It is equally obvious that considerations of employability should <u>not</u> be the only concerns leading to changes in graduate training. The integrity of any discipline demands that students be aware of state of the art developments in theory and research. Simultaneously, it is appropriate for doctoral programs in general and those in educatioal psychology in particular to be concerned about employability to a greater degree than in former years since the traditional academic jobs assumed by graduates are now, and will continue to be in short supply (Newsome & Stillwell,undated; Department of Labor, 1982,p. 129). It therefore becomes vital to envision other roles, so that students in educational psychology programs can find productive employment upon their graduation. In turn, these new roles may demand

new skills, or a different emphasis for traditional skills.

Demographic Trends

Some major demographic trends are pertinent to this problem. Much has been made of the post World War II "baby boom". This phenomenon, of course, refers to the huge increase in the birth rate in 1947 (Bureau of Census, 1975,p. 51) compared to 1946. The boom resulted in overcrowding and split sessions in our elementary and secondary schools in the 1950s, and in expansion in higher education in the early 1960s. The boom was followed by a "baby bust" in which the birth rate was markedly reduced, resulting in contraction and retrenchment experienced by schools and colleges in the late '70's and early '80's. Children from the baby boom are now begining to enter their forties. In this decade, demands for medical services typically double (Statewide Health Occupations Review Committee, 1982) compared to earlier periods. The increased call for health services will persist as the "baby boomers" continue to age. These data are examples of a more general trend- the aging United States population. Approximately 14.8% of Americans (Bureau of the Census,1984, p.8) are likely to be 65 years old and presumably retired by the year 2000.

An equally important demographic phenomenon has been the increasing presence of women in the labor force. Estimates are that by 1990 73% of the women will be in the work force(Department of Labor, 1981).

Medical and Allied Health Contexts. These demographic data have some important implications for the roles of educational psychologists. The greater demands for medical service suggest that the education of medical and allied health personnel will continue to be an area of intense activity. Educational psychologists have been

employed in medical schools for some time now, filling roles in the areas of research design, consultation, program evaluation, and in the development of instructional materials. The demographic data described above suggest that this trend can be expected to increase in the next few years.

In addition to medical school settings, however, the aging population, and the greater need for medical services suggest some new roles for educational psychologists. Alternatives to the medical model, which emphasizes sick care (Garfield, 1979), are being formulated. One of these, referred to as the wellness model (Equitable, undated; Goldbeck, 1980; Department of Health Education and Welfare (HEW), 1978), involves monitoring health by obtaining various physiological fitness indices and processing these with the aid of computers to formulate plans in order to maintain and enhance people's health. In addition to monitoring health, wellness programs offer educational services including instruction in such areas as weight control, nutrition, the importance of exercise, reduction of substance abuse such as tobacco, alcohol, and drugs, and stress management (Equitable, undated; Luoto, 1983).

A specialty of educational school psychology has been suggested elsewhere (Tobias, 1984), stimulated by the wellness rationale. Unlike traditionally trained educational psychologists, practitioners of this specialty were encouraged to work directly in schools in order to discharge a variety of functions intended to maintain and enhance the competence of students. Included among these were such roles as helping schools implement direct instruction, test anxiety reduction and study skills training programs, and to instruct teachers in various techniques to improve reading comprehension. Since that

specialty is described in some detail elsewhere (Tobias, 1984), little time will be devoted to it here.

The instructional components of wellness programs have much to gain from the development and implementation of well conceived educational materials developed according to instructional system design considerations. Clearly, this is an area where educational psychologists with specialization in human learning and instruction have a great deal to offer. Not only can such training be useful in the development of materials, but important research is needed to understand how instructional interventions can be designed to alter habits which have proven resistant to modification by a variety of means.

The Surgeon General's report (HEW, 1979) indicated that improvements in health will be made mainly trhough disease prevention and health promotion programs. Such projects must have major instructional components to which educational psychologists can make a major contribution. In addition to presenting research opportunities, the solution of some of these problems can have vitally important positive implications for health. It should be noted parenthetically that the development of such programs may ultimately lead to their implementation in the health tracks of schools. For example, the incidence of smoking among male teenagers has dropped from 14.7% in 1968 to 10.7% in 1979, while that of female teens has increased in the same time from 8.4% to 12.7% (Luoto, 1983). The objective of the Department of Health and Human Services (1983) is to reduce the smoking rate to less than 6% among young people. Presumably the elimination of cigarette smoking ultimately depends on reducing smoking among young people who attend school. Concerns such

as these are likely to be addressed in the schools of the 21st Century, and educational psychologists should be in the forefront of such efforts in roles such as conducting research and evaluation, as well as in materials and program development functions.

The aging population also offers other opportunities for educational psychology. Obviously doctoral programs with specialization areas in developmental psychology might consider adding offerings in life span developmental psychology (Havighurst, 1981) including the gerontological area. While other specialties serve this population, educational psychologists might make contributions in a number of areas. In addition to conducting research on various aspects of gerontology, educational psychologists may be in an ideal position to investigate a number of research question. Specifically, research on instruction especially designed for retired individuals is one obvious opportunity. Such instruction offers a special vantage point for the study of intrinsic motivation since retired individuals are most unlikely to learn subjects merely for extrinsic reasons. Furthermore, the relationship between learning in older individuals, compared to earlier periods in their life would be of obvious interest. Equally valuable would be studies of mental ability, especially as it relates to indices of prior learning such as grades in elementary, secondary, and post secondary schooling. Research on the development of effective instruction for this population is also of obvious interest.

The aging population also offers some less direct job opportunities for educational psychologists. Estimates suggest that the emphasis of medical care in the United States is likely to change from an emphasis on acute intensive treatment to concentrating on long

term chronic care (Statewide Health Occupations Education Committee, 1982). In the latter category will be illnesses such as the family of conditions known as arthritis, and similar disease entities in which the major aim is to make people as comfortable as possible in adjusting to long term disabilities, rather than to cure.

Chronic diseases offer several types of challenges and opportunities to educational psychologists. The challenges include understanding the implications of such conditions from the perspective of life span developmental psychology (Havighurst, 1981). Educational psychology programs whose primary concern is with developmental questions should be encouraged to focus their attention on developmental concerns in the second half of the average life span. Greater understanding of the types of changes occuring in that period will clarify the impact that chronic diseases are likely to have for an older population. A second area to be investigated involves the preparation of instructional materials enabling afflicted individuals to adjust to such diseases, and to exercise caution in evaluating the many panaceas offered by the unscrupulous to a population desperately searching for nonexistent cures.

The change in the emphasis of medical treatment also involves important challenges for the education of medical and allied health personnel. The type of care required by an aging population will put heavy emphasis on kind, patient, and humane care for the more or less chronically disabled (Statewide Health Occupations Education Review Committee, 1982). It can be expected that educating personnel to render such care is likely to be a much more difficult task than training them to administer new medications or to operate elaborate new technological equipment. The education of individuals to deal

with these conditions offers an important challenge to educational psychologists which, like the preceding ones, has both research and service implications. In terms of research, much needs to be learned about instructing individuals in human relations techniques to adapt to environments in which they will have to meet constant, often impatient and insistent demands for the type of personal attention which is not easily rendered by one adult to another. At the service end of this continuum, developing materials which successfully prepare such personnel will be a truly impressive accomplishment of importance to both the aging population and to those whose job it is to care for them on a long term basis.

Day Care Contexts. The increasing presence of women in the labor force also has important implications for educational psychology. This trend obviously suggests that there will be increased demands for day care for the children of the escalating percentage of working mothers. One can anticipate a continuing increase in such facilities at employment sites by large organizations, in addition to day care offered in proximity to the homes of families with young children. These trends suggest that educational psychology programs with specializations in developmental psychology may be well advised to stress rolels to be assumed in day care facilities by their graduates. For example, educational psychologists can assume leadership roles in the development and administration of day care centers, in addition to undertaking responsibility for the training of day care workers, and for conducting program evaluations. The applied concerns of educational psychology in general, and the potential bridge between the day care movement and pre-school education suggests that educational

psychologists are in a unique position to become actively envolved in the day care movement in order to offer something that can truly be called early childhood education, as opposed to the child care services often rendered in such settings.

Futurists Expectations

The expectations of futurists range from wild-eyed prognostications inducing skeptisicm among many, to relatively reasonable projections of future trends. Among the latter are Toffler's (1980) expectations that the advent of powerful broadcasting and data processing capabilities are likely to lead to major changes in our society. Prominent among these is a tendency to decentralization. Toffler reasoned that large metropolitan complexes were required in order to conveniently bring labor to the work site. Technological changes make such proximity much less important, leading to a reduction in centralization of business and industry and greater concern with the quality of life.

The pace of change in society has been remarkably rapid. In large part this may be attributed to the increasing influence of the computer. It may be hard to realize that microcomputers have only been sold fairly recently. In January 1975 the first advertisement for a microcomputer kit was published. The first computer store opened in July 1975, and by 1976 there were 56 such stores, and nearly 500 by 1977 (Kinne, 1980). The total factory value of microcomputers sold in 1981 was 1.6 million and by 1983 this figure had risen to an incredible 5.4 billion (Tobias, in press). Similarly rapid changes have occured in all areas of society affected by computers. It can be estimated that decentralization and technological change will alter the duties and responsibilities of all elements of the work force.

Training and Retraining. The estimates described above have important implications for educational psychology. They suggest that there will be an incredible need for training and retraining of the work force in order to cope effectively with new duties. This is likely to affect both the private and public sectors of the economy. As new equipment becomes available, operating that equipment, and altering the responsibilities of personnel will demand a major training effort within the next 20 years. These considerations suggest that the opportunities for individuals capable of developing instructional materials will be expanding dramatically.

It is well known that small consulting companies called in by industry to create such materials are quite a growth industry. It can be expected that the demand will increase substantially both for training departments within larger organizations and for consulting firms called in to prepare instructional materials of one kind or another. Conversations with employers and personnel indicate that the materials developed by people with uncertain training are frequently repetitive, boring, and inefficient. The potential job openings in these areas are substantial for well trained graduates of educational psychology programs with both course and practical experience in the development of instructional materials.

An estimate of the training budget in the Department of Defense may be instructive in this context.[1] The total expenditure for individuals in school based training in the Defense Department for fiscal year 1985 is $17.9 billion (Assistant Secretary of Defense, 1984). It should be noted that this figure is based on individualized training in school based programs, but does not include training in the field. The budget is somewhat inflated by the fact that the

salaries of those receiving training are included in this estimate, as they are in all training programs other than those occuring in traditional school contexts such as elementary, secondary, undergraduate, and graduate programs. It can be estimated that the salaries of those receiving training may cost three billion dollars leaving a total training budget of $14.9 billion for the remaining training costs. This figure includes capital cost for facilities and equipment, salaries of individuals supplying the training, and for research and development efforts in these areas. This is a dramatic figure and, while it is unlikely to be equaled by any single industry in the United States, it can probably be multiplied many times when the costs of providing training in business and industry are projected for the entire private sector. In addition it should be multiplied many more times when the next 20 years or so are considered.

Clearly, training is an area of major expansion for educational psychologists on which graduate programs should capitalize. A number of university programs in instructional design have sprung up largely separate from traditional educational psychology offerings. Local considerations may well have contributed to the separation of the programs in various universities. It is clear that this is unfortunate since good training in instructional design demands a solid background in human learning, as well as in quantitative and evaluative techniques, surely the staples of most educational psychology programs. It would seem important, though, to assure that sub-specializations in the development and evaluation of instructional materials be maintained within educational psychology for both the welfare of those programs, and the adequacy of training to be offered to future instrucional designers.

The demand for the development of instructional materials is accompanied by interesting research problems. Investigations will be needed to determine the type of variables that make people either resistent to change, or lead them to welcome it ,since the advent of new technology will make one thing quite certain: the responsibilities of various individuals will change, often dramatically. Research to determine the types of instructional techniques which are most likely to enable people to change and the degree to which individual difference variables such as anxiety, locus of control, or originality interact with the ability to change may well be of interest.

CAI. A sub-specialty can be envisioned dealing with application of computers for instruction. Becker (1983) surveyed a nationally representative sample of American schools and found that 53% of all schools had at least one microcomputer, as did 91% of the secondary schools with more than 1200 students. Many, of course, had a substantially greater number of machines. The great majority of uses to which computers are put in the school are hardly exciting or imaginative (Tobias, in press). Computer literacy among teachers and administrators is exceedingly low (Shavelson, 1984) and a great part of the use to which machines are put in schools is for electronic page turning; that is , using computers for instructional purposes which could as easily have been accomplished without computers.

Since the pace of utilization of computers in schools is unlikely to decrease, despite criticism such as that in the recent issue of the Teachers College Record (Sloan, 1984), an increasing need for people with CAI expertise can be expected. Schools have a small group of teachers and students who are knowledgable about computers

(Shavelson,1984). Such so called "computer buffs" generally become resonably proficient in a programming language, or in using prepackaged materials. Rarely, however, are these buffs knowledgeable about the development of instructional materials, their rigorous evaluation, or in devising innovative CAI applications. It can be expected that educational psychologists with such skills are likely to find employment, or consulting and research contacts in schools for the forseeable future. Their roles might be to suggest more innovative applications of CAI, and to integrate CAI into the school's curriculum. The prevalence of computers in the schools will probably exert a substantial pressure to utilize this equipment more imaginatively than is presently the case. Such innovative use will, in turn, create a market for the types of individuals described above.

Summary and Conclusions

A variety of demographic factors, and some futurists' expectations have been described and their implications for the development of newer roles for educational psychologists suggested. It is hoped that these considerations will be discussed by faculties in various graduate programs, with a view towards beginning the process of changing curricula to meet these emerging needs. Mention has been made of the resistance to change in nonuniversity environments. Colleagues in academia are also well known for avoiding change, and for the formidable rationale they offer to maintain the status quo. It is hoped that some of the developments described above will assist some individuals to assume the role of change agents. Such brave people can start to convince their colleagues on the many layers of committees by which universities protect themselves from change about the necessity of moving along some of the lines suggested

above in the very near future.

References

Assistant Secretary of Defense (1984). Military manpower training report for FY 1985. Volume IV: Force readinesss report. Washington, D.C.: Department of Defense.

Becker, H.J. (1983, October). School uses of microcomputers (Issue No. 3) Baltimore, MD: John Hopkins University, Center for Social Organization of Schools.

Bureau of The Census (1975). Historical statistics of The United States, colonial times to 1970, Bicentennial edition: Part 1. Washington, D.C.: U.S. Government Printing Office.

Bureau of The Census. (1984). Projections of the population of the United States by age, sex, and race: 1983 to 2080. (Series P-25, No. 952) Washington, D.C.: U.S. Government Printing Office.

Department of Health, Education, and Welfare. (1978). Disease prevention and health promotion: Federal programs and prospects. (PHS Publication No. 79-55071 B). Washington, D.C.: U.S. Government Printing Office.

Department of Health, Education, and Welfare. (1979). Healthy people: The Surgeon General's report on health promotion and disease prevention. (PHS Publication No. 79-55071). Washington, D.C.: U.S. Government Printing Office.

Department of Health and Human Services-Public Health Service. (1983). Health, United States. Washington, D.C.: U.S. Government Printing Office.

Department of Labor. (1982). Occupational outlook handbook. (BLS Bulletin No.2200). Washington, D.C.: U.S. Government Printing Office.

Department of Labor. (1984). Employment projections for 1995. (BLS Bulletin No. 2197). Washington, D.C.: U.S. Government Printing Office.

Equitable Life Insurance Company. (Undated). Model for an Equitable wellness program. New York: Author.

Farley, F. (1984, August). The future of educational psychology. Invited address presented at the annual convention of the American Psychological Association, Toronto, Canada.

Garfield, S. (1979). Health Testing -- A new concept of health care delivery. In G.K. Chacko (Ed.), Health Handbook (pp.179-189). New York:North-Holland Publishing Co.

Goldbeck, W. (Ed.). (1980). Mental wellness programs for employees. In R. Egdahl & D. Chapman Walsh (Eds.), The industry and health care series (No. 9). New York: Springer-Verlag.

Havighurst, R. J. (1981). Life-span development and educational psychology. In F.H. Farley & N.J. Gordon (Eds.), Psychology and education: The state of the union. Berkeley, CA: McCutchan.

Kinne, H.C. (1982, July). The microcomputer revolution. The computer: Extension of the human mind. Conference Proceedings. Eugene: University of Oregon, College of Education, 86-90.

Luoto, J. (1983). Reducing the health consequences of smoking--A progress report. Public Health Reports, 98, 34-39.

Newsome, T.I. & Stilwell, W.E. (Undated). Employment opportunities on the industrial-academic interface. Unpublished Manuscript, Lexington: University of Kentucky.

Shavelson, R.J. (1984, August). Patterns of teachers' microcomputers-based mathematics and science instruction. Invited address presented at the annual convention of the American Psychological Association, Toronto, Canada.

Sloan, D. (Ed.). (1984). The computer in education in critical perspective. Teachers College Record, 85, (4).

Statewide Business Education Review Committee. (1979). Looking towards the future. New York: City University of New York, Institute for Research and Development in Occupational Education.

Statewide Health Occupations Education Review Committee. (1982). Looking towards the future in the health occupations. New York: City University of New York, Institute for Research and Development in Occupational Education.

Tobias, S. (1977). Statewide business education evaluation committee. New York: City University of New York, Institute for Research and Development in Occupational Education.

Tobias, S. (1978). Statewide business education review committee. New York: City University of New York, Institute for Research and Development in Occupational Education.

Tobias, S. (1980). Examination of the health occupations education on curriculum from a futurist perspective: I. New York: City University of New York, Institute for Research and Development in Occupational Education.

Tobias, S. (1981). Examination of the health occupations education curriculum fom a futurist perspective: II. New York: City University of New York, Institute for Research and

Development in Occupational Education,.

Tobias, S. (1984, August). Implications of wellness models for educational and school psychology. Paper presented at the annual convention of the American Psychological Association, Toronto, Canada.

Tobias, S. (in press). Computer assisted instruction. In M. Wang & H. Walberg (Eds.), Adaptive Instruction, Berkeley, CA: McCutchan.

Toffler, A. (1980) The Third Wave. New York: Morrow.

Footnotes

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